AMENDMENTS TO THE SPECIFICATION

On page 24 of the specification, please replace paragraph beginning on line 8 with the following amended paragraph:

Figure 8 shows schematically how the construction of a system according to the invention can be carried out. A system designer 80 designs a control system 81 to be used in a product, for example a boat 82. In the example, the system consists of a boat control unit 83 which communicates, via a bus 84, with three motors with associated auxiliary devices for course setting, raising and lowering of rigging, logs, etc, 85, 85' and 85". The control electronics for the boat control unit 83 are represented by 86 and for the respective motors by 87, 87' and 87". The system designer builds up the system in a computer-based tool 88 which can be of a type according to ~~PCT/SE97/00581~~ U.S. Patent No. 7,188,162, issued March 6, 2007, and ~~PCT/SE02/02161~~ U.S. Patent Application Publication No. 2005/0086382 A1, published April 21, 2005. In addition to a selection of characteristics that are described in the documents referred to, the tool has also a part 89 for scheduling according to the invention. In a first step, the system designer develops one or more virtual schedules 90 based on one or more virtual clocks 91 for the system as described above. The tool processes the virtual schedule into one or more local actual schedules for the respective modules which are indicated by 92, 93, 94 and 95. What is important for the invention is that the schedule is associated with the correct choice of identifier and their associations with each other and their priority in the event of collision on the bus, for which reason this has been marked specially by 92', 93', 94' and 95'. The tool supplies additional information i1 for settings, program codes, etc, for the respective module which is indicated by 96. The information i2 thus created and processed is transferred to a configuring tool 97 via the connection 98 which can be selected in a suitable way, for example via a diskette, file transfer in a digital network, etc. In addition to configuring the system, the information can be used for later analysis of the same and the configuring tool can advantageously be combined with an analysis tool which, among other things, can compare

the virtual schedule with the actual schedule which appears on the bus during the system's operation. The configuring tool is connected to the system's bus via the connection 99 and the connector 99' and requisite information 100 for local schedules, settings, etc, is exchanged between the modules and the tool. The virtual schedule function can also convey direct information i3 to the configuration tool 97 for requisite processing.

On page 25 of the specification, please replace paragraph beginning on line 17 with the following amended paragraph:

101 shows schematically the functions comprised in the respective module. The module is connected to the bus via a connector 101 which can be a contact or a wireless connection, for transferring the bus signals i4 to and from the module. The signals pass through signal-adapting means 102, for example a CAN transceiver, which in turn is connected to a protocol circuit 103, for example a CAN Controller. This is connected to a CPU 104 with requisite peripherals and application software 105 for the module function. In addition, the module has at least software 107 which can set received messages 108 on the bus in relation to messages 109 which are to be sent. The module has an actual clock 110 which is set in relation to at least one edge on message signals on the bus, for example the falling edge 111 at Start of Frame in a CAN message. In its simplest form, the clock [[101]] 110 consists of the clock incorporated in a CAN Controller for bit synchronization and interpretation. The module can be arranged to handle time-controlled means symbolized by the unit 112 and the outgoing and incoming signal connections 113. The controls i5 can be related to the clock 110 and/or a clock 114 with a second time base, for example a time base that varies with the engine speed. The module can also be arranged to handle event-driven or event-controlling means symbolized by the unit 115 and the outgoing and incoming signal connections 116. Signals i6 from events or triggering of events are co-ordinated with the time-related signals i5 and with the actual schedule (the actual schedules) in the module and with the messages' identities according to the arrangement 117 and 118. Activities in the module trigger transmission of a message 119

on the bus according to the actual schedule which collides with the message 108. If the collision takes place in Start of Frame then, if it has a higher priority than 108, the module's message will appear on the bus instead of the message 108. The sender of message 108 will receive 119 and then again commence transmission of 108. If 108 has the highest priority, the module will wait until 108 has been received and then send 119. If SoF has already been received, then the module waits to send 119 until 108 has been received. The transfer or exchange of information or signals between the virtual schedule and the system tool is symbolized by i7.